ABSTRACT

THE OUTCOME OF HEAD UP TILT TEST IN ELDERLY PATIENTS WITH TYPICAL VERSUS ATYPICAL FEATURES OF SYNCOPE

BACKGROUND

Syncope is a common cause of recurrent falls and transient loss of consciousness in the elderly. In the absence of a gold standard test for diagnosing syncope, a clinical history and HUTT test form the cornerstone of diagnosis of syncope. But in many instances, the evaluation of a fall and transient loss of consciousness entails unnecessary expensive investigations including brain imaging, loop recorders, EEG and undue distress to the patient. Since neurocardiogenic syncope is a benign condition which can be prevented by simple measures, its diagnosis by history and inexpensive tests like HUTT save the patient unnecessary expenditure and stress.

AIM

To determine the outcome of head up tilt test in elderly patients with typical versus atypical features of syncope.

OBJECTIVES

1) To determine the outcome of head up tilt test in elderly patients aged sixty years and more who present with typical versus atypical history of syncope.

2) To study the occurrence of various prodromal symptoms in syncope and their association with HUTT positivity.

3) To study the association of HUTT response and comorbidities and comorbid burden.

4) To study the association of syncope, type and HUTT response with medications taken by the subject.

5) To study the association of syncope and HUTT response with hand grip strength and mini cog test.

6) To study the association of syncope and HUTT response with result of Holter test.

METHODS

We conducted an observational study of the patients aged 60 and above presenting to the departments of Geriatrics and Cardiology with a history of neurocardiogenic syncope from May 2017 to October 2017. The participants who were ordered HUTT tests from

the OPD were recruited. We looked at the association of the type of syncope whether typical or atypical based on the history and outcome of their HUTT test. We also evaluated them for association of type of syncope and HUTT response with prodromal symptoms, individual comorbidities, cumulative comorbid burden based on their Charlson comorbidity index, medications, triggering factors, ECG and Holter.

FINDINGS

Between May 2017 and October 2017, we recruited 44 patients for the study. 77.27% were in the age group 60-70 years and the rest in 70-80 years. 27 of the 44 patients had typical syncope and 17 had atypical syncope. Of these 44 patients, 30 had a negative response to the HUTT test and 14 had positive response. There was no association between the type of syncope (whether typical or atypical) and HUTT response. The prodromal symptoms of sweating, light headedness and blurred vision were significantly associated with typical syncope but not with a positive HUTT response. Among the triggering factors, orthostatic stress and a standing position had a significant association with typical syncope but not with HUTT positivity. None of the comorbidities studied (Diabetes, Hypertension, Dyslipidemia, Ischemic heart disease, Cerebrovascular accident or COPD) had any association with either Typical syncope or HUTT positivity. Also, none of the medications studied (ACE inhibitors/ARBs, Beta blockers, CCBs, Diuretics, Benzodiazepines or Antidepressants had any association with HUTT response or typical syncope. Cognition and grip strength were also not found to have any association with either of these. The most common type of HUTT response was mixed (type1) which was seen in 42.86% of the patients followed by type 3 (28.51%), type 2B (21.43%) and type 2A (7.14%). No association was found between typical syncope or HUTT response and ECG or Holter.

CONCLUSION

As per this study, the positivity rate of HUTT for patients with a history of syncope is 31.8%. Also, there is no association between typical or atypical syncope and HUTT positivity. Dizziness, light headedness, blurred vision and sweating are significantly associated with typical syncope. None of the comorbidities or medications have an association with syncope or HUTT response but the comorbid burden has a significant and positive association with positive HUTT response. So, history is of paramount importance in diagnosing patients with syncope and can be aided by a HUTT test